



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

March 19, 2010

Mr. T. E. Sellmer, Manager  
Packaging Integration  
Washington TRU Solutions LLC  
P. O. Box 2078  
Carlsbad, New Mexico 88221-2078

SUBJECT: MODEL NO. RH-TRU 72-B RENEWAL

Dear Mr. Sellmer:

Enclosed is Certificate of Compliance No. 9212, Revision No. 5, for the Model No. RH-TRU 72-B package. This certificate supersedes in its entirety, Certificate of Compliance No. 9212, Revision No. 4, dated July 28, 2006. Changes made to the enclosed certificate are indicated by vertical lines in the margin. The staff's Safety Evaluation Report is also enclosed.

The approval constitutes authority to use the package for shipment of radioactive material and for the package to be shipped in accordance with the provisions of 49 CFR 173.471. Those on the attached list have been registered as users of the package under the general license provisions of 10 CFR 71.17 or 49 CFR 173.471. If you have any questions regarding this certificate, please contact me or Chris Staab of my staff at (301) 492-3321.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric J. Benner", is positioned above the typed name.

Eric J. Benner, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 71-9212

Enclosures: 1. Certificate of Compliance  
No. 9212, Rev. No. 5  
2. Safety Evaluation Report  
3. Registered Users

cc w/encls 1 & 2: R. Boyle, Department of Transportation  
J. Shuler, Department of Energy

**CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES**

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
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2. PREAMBLE

- a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."
- b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.
3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION
- |  |   |
|--|---|
| a. ISSUED TO ( <i>Name and Address</i> )     | b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION                                    |
| Department of Energy<br>Washington, DC 20585 | Westinghouse TRU Solutions LLC application<br>dated November 27, 2002, as supplemented. |

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

5.

(a) Packaging

- (1) Model No: RH-TRU 72-B
- (2) Description

A stainless steel, lead-shielded cask designed to provide double containment for shipment of transuranic waste materials. The packaging consists of a cylindrical stainless steel and lead cask body, a separate inner stainless steel vessel, and foam-filled impact limiters at each end of the cask body.

The cask body (outer cask) consists of a 1 1/2-inch thick, 41 5/8-inch outer diameter stainless steel outer shell, and a 1-inch thick, 32 3/8-inch inside diameter stainless steel inner shell, with 1 7/8 inches of lead shielding between the two shells. The cask bottom is 5-inch thick stainless steel plate. The cask is closed by a 6-inch thick stainless steel lid, and 18, 1 1/4-inch diameter bolts. The main closure lid has a double bore-type O-ring seal. The containment seal is the inner butyl O-ring seal, which is leak testable. The cask lid has a single vent/sampling port that is sealed with leak testable butyl O-ring seals.

The separate inner vessel consists of a 3/8-inch thick, 32-inch outside diameter stainless steel shell, and a 1 1/2-inch thick stainless steel bottom plate. The inner vessel is closed by a 6 1/2-inch thick stainless steel lid, and eight, 7/8-inch diameter bolts. The inner vessel closure lid has three bore-type O-ring seals. The containment seal is the middle butyl O-ring seal, which is leak testable. The inner vessel lid has a helium backfill port and a combination vent/sampling port that are sealed with leak-testable butyl O-ring seals.

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5.(a) (2) Description (Continued)

A polyurethane foam-filled stainless steel impact limiter is attached to each end of the cask body using six, 1 1/4-inch diameter bolts. The radioactive contents are packaged within a stainless or carbon steel waste canister that is placed in the inner vessel.

The approximate dimensions and weights of the package are as follows:

Overall package length	187 3/4 inches
Impact limiter diameter	76 inches
Cask length	141 3/4 inches
Cask outer diameter (OD)	41 5/8 inches
Inner vessel length	130 inches
Inner vessel OD	32 inches
Cask lead shield thickness	1 7/8 inches
Maximum package weight (including contents)	45,000 pounds
Maximum weight of contents (including waste canister)	8,000 pounds

(3) Drawings

The packaging is constructed and assembled in accordance with Packaging Technology Drawing No. X-106-500-SNP, Sheets 1-8, Rev. 4.

The fixed lid waste canister is constructed and assembled in accordance with Packaging Technology Drawing No. X-106-501-SNP, Rev. 4. The removable lid waste canister is constructed and assembled in accordance with Packaging Technology Drawing No. X-106-502-SNP, Rev. 2.

(b) Contents

(1) Type and form of material

Byproduct, source, and special nuclear material in the form of dewatered, solid or solidified materials and waste, within the stainless or carbon steel waste canister described in Item 5(a)(3). Explosives, corrosives (pH less than 2 or greater than 12.5), and compressed gases are prohibited. Within a waste canister radioactive and non-radioactive pyrophorics must not exceed 1 weight percent. Flammable volatile organics are limited along with hydrogen to ensure the absence of flammable gas mixtures in RH-TRU waste payloads as described in RH-TRAMPAC (Revision 0).

(2) Maximum quantity of material per package.

Not to exceed 8,000 pounds, including the weight of the waste canister.

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5.(b) (2) Contents (Continued)

Fissile material not to exceed limits described in Section 3.1, "Nuclear Criticality" of RH-TRAMPAC (Revision 0). Pu-239 equivalent is determined in accordance with RH-TRAMPAC (Revision 0). Low enriched uranium is authorized for waste containers containing material that is primarily uranium (in terms of heavy metal component) and the waste matrix is distributed within the canister in such a manner that the maximum enrichment does not exceed 0.96% uranium (U-235) fissile equivalent mass in any location of the waste material.

Maximum decay heat per package not to exceed 50 watts for organic wastes and 300 watts for inorganic waste, and not to exceed the limits in RH-TRAMPAC (Revision 0).

- (c) Criticality Safety Index: 0.0
6. Waste content codes and classification, physical form, chemical properties, chemical compatibility, gas generation, fissile content, decay heat, isotopic inventory, weight, and radiation dose rate must be determined and limited in accordance with RH-TRAMPAC (Revision 0).
7. Each waste canister must not exceed the decay heat limits determined as specified in RH-TRAMPAC (Rev. 0), or must be tested for gas generation in accordance with RH-TRAMPAC (Rev. 0), Section 5.0, "Gas Generation Requirements."
8. A RH-TRU waste canister may be comprised of inner containers with different content codes provided that the hydrogen gas generation rate limit or decay heat limit for all of the inner containers within the payload is assumed to be the same as the content code with the lowest hydrogen gas generation rate limit or decay heat limit.
9. The waste canister and any sealed secondary containers greater than 4 liters in size overpacked in the waste canister must be vented in accordance with the minimum specifications in Section 2.4, Filter Vents, of RHTRAMPAC (Revision 0).
10. In addition to the requirements of Subpart G of 10 CFR Part 71:
- (a) Each package must be prepared for shipment and operated in accordance with the procedures described in Chapter 7.0, "Operating Procedures," of the application, as supplemented.
  - (b) Each packaging must be tested and maintained in accordance with the procedures described in Chapter 8.0, "Acceptance Tests and Maintenance Program," of the application, as supplemented.
11. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.
12. Packages may be marked with Package Identification Number USA/9212/B(M)F-85 until July 31, 2007 and must be marked with Package Identification Number USA/9212/B(M)F-96 after July 31, 2007.

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13. Revision No. 4 of this certificate may be used until March 31, 2011.

14. This package may not be used for transport by aircraft.

15. Expiration date: February 28, 2015.

REFERENCES

Westinghouse TRU Solutions, LLC, application dated November 27, 2002.

Supplements dated: Washington TRU Solutions, LLC, November 1, 2004; October 14, 2005; June 5, 2006; and January 4, 2010.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Eric J. Benner, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Date: *March 19, 2010*



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WASHINGTON, D.C. 20555-0001

**SAFETY EVALUATION REPORT**  
Docket No. 71-9212  
Model No. RH-TRU 72-B Package  
Certificate of Compliance No. 9212  
Revision No. 5

The certificate has been renewed for a five-year term which expires on February 28, 2015.  
There have been no changes to the packaging design or contents.

Issued with Certificate of Compliance No. 9212, Revision No. 5,  
on March 19, 2010.

REGISTERED USERS FOR COC NO. 9212

GE – Hitachi Nuclear Energy Americas, LLC  
Attn: Donald R. Krause  
Vallecitos Nuclear Center  
6705 Vallecitos Road  
Sunol, CA 94586

U. S. Department of Energy  
Attn: James M. Shuler  
EM-63/CLOV-2047  
1000 Independence Ave., S.W.  
Washington, DC 20585

Washington Government Environmental  
Attn: Mr. Preston Harvey  
Services Company, LLC  
P.O. Box 2138  
Carlsbad, NM 88221